

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A light pipe comprising:

a plate-like member including light output means formed in an upper surface of said plate-like member so that light incident on an incidence side surface of said plate-like member is exited from a lower surface of said plate-like member through said light output means;

an adhesive layer having a refractive index lower than that of said plate-like member; and

an anti-reflection layer made of a circular polarizer and bonded to a lower surface of said plate-like member through said adhesive layer,

~~wherein said light output means formed in said upper surface of said plate-like member is constituted by a plurality of prismatic structures each shaped like a triangle in section and each having an optical path changing face inclined at an inclination angle in a range of from 35 to 48 degrees with respect to a reference plane of said lower surface of said plate-like member~~

wherein said light output means formed in said upper surface of said plate-like member is formed by a repetitive structure of prismatic structures each having an optical path changing face and a long side face and arranged at intervals of a pitch of from 50 μ m to 1.5 mm; each of said optical path changing faces is formed of a slope inclined downward from said incidence side surface to a counter end surface opposite thereto at an inclination angle in a range of from 35 to 48 degrees with respect to a reference plane of said lower surface of said plate-like member; each

of said long side faces is made of a slope inclined at an angle in a range of from 0 to 10 degrees with respect to said reference plane; a difference between inclination angles of any two long side faces is not larger than 5 degrees over a surface of said plate-like member; a difference between said inclination angles of adjacent ones of said long side faces is not larger than 1 degree; and a projected area of said long side faces on said reference plane is not smaller than 5 times as large as that of said optical path changing faces on said reference plane.

2. (previously presented): A light pipe according to claim 1, wherein said anti-reflection layer made of a circular polarizer includes a quarter-wave plate, and a linear polarizer.

3. (previously presented): A light pipe according to claim 2, wherein said anti-reflection layer made of a circular polarizer further includes a half-wave plate.

4. (previously presented): A light pipe according to claim 3, wherein a maximum intensity of light exited from said lower surface of said plate-like member in a plane perpendicular to reference planes of both said lower surface and said incidence side surface of said plate-like member is inclined at an angle of not larger than 30 degrees with respect to a normal to said reference plane of said lower surface of said plate-like member.

5. (canceled).

6. (canceled).

7. (previously presented): A light pipe according to claim 1, wherein ridgelines defining edges of said optical path changing faces are inclined within a range of ± 30 degrees with respect to a reference plane of said incidence side surface.

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8. (original): A light pipe according to claim 1, wherein said refractive index of said adhesive layer for bonding said anti-reflection layer to said lower surface of said plate-like member is lower than that of said plate-like member by 0.01 or more.

9. (original): A light pipe according to claim 1, wherein said refractive index of said adhesive layer for bonding said anti-reflection layer to said lower surface of said plate-like member is not higher than 1.47.

10. (original): A light pipe according to claim 1, wherein said adhesive layer for bonding said anti-reflection layer to said lower surface of said plate-like member is constituted by a tacky layer.

11. (original): A plane light source unit wherein at least one light source is disposed on one side surface of a light pipe defined in claim 1.

12. (original): A reflection type light-crystal display device wherein a liquid-crystal cell including a reflection layer is disposed on a light exit side of a plane light source unit defined in claim 11.

13. (currently amended): A light pipe comprising:
a plate-like member including light output means formed in an upper surface of said plate-like member so that light incident on an incidence side surface of said plate-like member is exited from a lower surface of said plate-like member through said light output means;
an adhesive layer having a refractive index lower than that of said plate-like member; and
a light-diffusing layer including fine prismatic structures formed in a surface thereof and bonded to said lower surface of said plate-like member through said adhesive layer,

~~wherein said light output means formed in said upper surface of said plate-like member is constituted by a plurality of sectionally triangular prismatic structures having optical path changing faces each inclined at an inclination angle in a range of from 35 to 48 degrees with respect to a reference plane of said lower surface~~

wherein said light output means formed in said upper surface of said plate-like member is formed by a repetitive structure of prismatic structures arranged at intervals of a pitch of from 50 μm to 1.5 mm and each having an optical path changing face and a long side face; each of said optical path changing faces is constituted by a slope inclined downward from said incidence side surface side to a counter end side at an inclination angle in a range of from 35 to 48 degrees with respect to a reference plane of said lower surface so that a projected width of each of said slopes on said reference plane is not larger than 40 μm ; and each of said long side faces is constituted by a slope inclined at an inclination angle in a range of from 0 to 10 degrees with respect to said reference plane so that an angle difference between any two long side faces over a surface of said plate-like member is not larger than 5 degrees, so that a difference between inclination angles of adjacent ones of said long side faces is not larger than 1 degree and so that a projected area of said long side faces on said reference plane is not smaller than 5 times as large as a projected area of said optical path changing faces on said reference plane.

14. (original): A light pipe according to claim 13, wherein said light-diffusing layer is constituted by a fine prismatic-structure layer provided on a transparent film.

15. (original): A light pipe according to claim 13, wherein said light-diffusing layer further includes an anti-reflection layer provided on said fine prismatic-structure layer.

16. (original): A light pipe according to claim 13, wherein a direction of maximum intensity of light exited from said lower surface in a plane perpendicular both to a reference plane of said lower surface of said plate-like member and to a reference plane of said incidence side surface of said plate-like member is within 30 degrees with respect to a normal to said reference pane of said lower surface.

17. (canceled).

18. (canceled).

19. (previously presented): A light pipe according to claim 13, wherein ridgelines defining edges of said optical path changing faces are in a range of ± 30 degrees with respect to a reference plane of said incidence side surface.

20. (original): A light pipe according to claim 13, wherein the refractive index of said adhesive layer for bonding said light-diffusing layer to said lower surface of said plate-like member is lower by a value of from 0.01 to 0.2 than that of said plate-like member; and a refractive index of aid light-diffusing layer is higher than that of said adhesive layer.

21. (original): A light pipe according to claim 13, wherein the refractive index of said adhesive layer for bonding said light-diffusing layer to said lower surface of said plate-like member is not higher than 1.47.

22. (previously presented): A light pipe according to claim 13, wherein said adhesive layer for bonding said light-diffusing layer to said lower surface of said plate-like member is constituted by a tacky layer.

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23. (original): A plane light source unit wherein at least one light source is disposed on one side surface of a light pipe defined in claim 13.

24. (original): A reflection type liquid-crystal display device wherein a liquid-crystal cell including a reflection layer is disposed on a light exit side of a plane light source unit defined in claim 23.